

REMARKS

Claims 1-11, 13-23, and 25-40 are pending in this application. Claims 36-40 stand withdrawn as being directed to a non-elected invention.

Claim Rejections Based on Prior Art

Rejections Based on Kownacki

Claims 1-11, 13-24, and 26-32 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,302,125 to Kownacki et al. ("Kownacki"). Kownacki discloses a dental prosthetic implant and abutment system used for dental restoration. Col. 1, ll. 6-10. Kownacki discloses in FIG. 8 an abutment 20 that contains flexible fingers 40 that interact with a minimum diameter region 78 of the implant 12. Col. 5, ll. 16-41. Kownacki describes that a locking screw 22 "forces flexible fingers 40 into engagement with [implant] 12 preventing withdrawal and rotation, once proper rotational adjustment about the longitudinal axis has been made." Kownacki teaches that an infinitely rotationally adjustable abutment is used, where a practitioner may rotate the abutment 20 to any position relative to the implant 12 before tightening the screw 22 to lock the abutment 20 to the implant 12. Col. 5, ll. 37-41. Thus, Kownacki does not teach or disclose any anti-rotational features as being present on the implant 12 or the abutment 20. In fact, Kownacki teaches that his invention is directed to "an improved dental prosthetic implant with enhanced angular rotation and locking capabilities once the abutment has been positioned in a preferred position relative to the implant fixture." Col. 1, ll. 6-11. Thus, Kownacki teaches that a practitioner only prevents rotation of the abutment relative to the implant after the abutment has been seated within the implant.

As shown in FIG. 8, the abutment 20 has no feature adapted to prevent the rotation of the abutment 20 relative to the implant 12 until the screw 60 is tightened. Therefore, the abutment 20 is free to rotate 360° within the implant 12 when the abutment is being seated relative to the implant 12. Hence, Kownacki fails to disclose or suggest any type of anti-rotational section, or any other feature to limit rotational movement of the abutment 20 relative to the implant 12, other than a fully tightened screw 22 that forces the fingers 40 into contact with a surface of the implant 12.

Even though most of the claims have not been rejected under 35 U.S.C. § 103 based solely on Kownacki, such a rejection would be improper. To modify Kownacki to include anti-rotational features would be by the type of proposed modification that would render the prior art “unsatisfactory for its intended purpose” and “change the principle of operation” of a reference in a manner counter to established law. M.P.E.P. § 2143.01 (citing *In re Gordon*, 733 F.2d at 902, 221 U.S.P.Q. at 1127 and *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959)). Kownacki clearly teaches that an infinitely rotationally adjustable abutment should be used, where a practitioner may rotate the abutment 20 to any position relative to the implant 12 before tightening the screw 22 to lock the abutment 20 to the implant 12. Col. 5, ll. 37-41. Thus, Kownacki would be unsatisfactory for its intended purpose if anti-rotational features were added that limited the rotational adjustable of the Kownacki abutment relative to the implant.

Claim 1-9

Claim 1 of the pending application positively recites “an interior bore having a non-round section,” and an abutment with a stem “having a non-round section for ant-rotational engagement with the non-round section of the implant interior bore.” “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); MPEP § 2131. As previously mentioned, Kownacki in no way teaches or suggests any type of anti-rotational feature. In fact, Kownacki states that “Hex socket 60 permits the locking screw 22 to be properly seated forcing flexible fingers 40 into engagement with fixture 12 preventing withdrawal and rotation, *once proper rotational adjustment about the longitudinal axis has been made.*” Col. 5, ll. 37-41 (emphasis added). Rather than utilize non-round sections on both the implant and the abutment to limit rotational movement of the abutment relative to the implant, Kownacki teaches that infinite adjustment of the abutment relative to the implant is desirable. Col. 1, ll. 6-11. Thus, Kownacki fails to teach, disclose, or suggest all of the limitations of claim 1. Therefore, Kownacki does not anticipate, nor render obvious, claim 1, and Applicant respectfully requests that this rejection be withdrawn.

Claims 2-9 are dependent claims that depend directly from claim 1. As not all of the limitations of claim 1 are disclosed or suggested by Kownacki, claims 2-9 are not anticipated nor

rendered obvious by Kownacki. Thus, Applicants respectfully request that these rejection be withdrawn.

Claim 10

Amended claim 10 recites an implant with a “bore having an anti-rotational non-round cross-section,” an abutment with a stem “having a non-round cross section for engagement with the anti-rotational non-round cross section of the implant.” As previously mentioned, Kownacki in no way teaches or suggests any type of anti-rotational features on the implant or the abutment. Thus, Kownacki fails to teach, disclose, or suggest all of the limitations of claim 10. Therefore, Kownacki does not anticipate, nor render obvious, claim 10, and Applicant respectfully requests that this rejection be withdrawn.

Claims 11, 13

Claim 11 has been amended to recite “a first internal anti-rotation feature” and “a second internal anti-rotation feature.” As previously discussed, Kownacki in no way teaches or suggests any anti-rotational features. Thus, Kownacki fails to teach, disclose, or suggest all of the limitations of claim 11. Therefore, Kownacki does not anticipate, nor render obvious, claim 10, and Applicant respectfully requests that this rejection be withdrawn.

Claim 13 is a dependent claim that depends directly form claim 11. As not all of the limitations of claim 11 are disclosed or suggested by Kownacki, claim 13 is not anticipated nor rendered obvious by Kownacki. Thus, Applicants respectfully request that this rejection be withdrawn.

Claims 14-19

Claim 14 has been amended to recite an abutment in combination with an axial retention screw where the abutment has a “stem having a non-round section for anti-rotational engagement with a non-round section of the implant.” Kownacki in no way teaches or suggests any anti-rotational features on an abutment. Thus, Kownacki fails to teach, disclose, or suggest all of the limitations of claim 14. Therefore, Kownacki does not anticipate, nor render obvious, claim 14, and Applicant respectfully requests that this rejection be withdrawn.

Claims 15-19 are dependent claims that depend directly form claim 14. As not all of the limitations of claim 14 are disclosed or suggested by Kownacki, claims 15-19 are not anticipated

nor rendered obvious by Kownacki. Thus, Applicants respectfully request that these rejection be withdrawn.

Claims 20-24, 26-32

Independent claim 20 is directed to a dental implant system and recites a dental implant that has “a non-round cross section portion” and an abutment with “a non-round cross section portion for anti-rotational engagement with said non-round cross-section portion of said implant.” Kownacki in no way teaches or suggests that the abutment and the implant contain non-round cross-section portions for anti-rotational engagement between the abutment and the implant. Thus, Kownacki fails to teach, disclose, or suggest all of the limitations of claim 20. Therefore, Kownacki does not anticipate, nor render obvious, claim 20, and Applicant respectfully requests that this rejection be withdrawn.

Claims 21-23 and 26-32 are dependent claims that depend either directly or indirectly from claim 20. Dependent claim 24 has been canceled. As not all of the limitations of claim 20 are disclosed or suggested by Kownacki, claims 21-23 and 26-32 are not anticipated nor rendered obvious by Kownacki. Thus, Applicants respectfully request that these rejection be withdrawn.

Claims 33-35

Claims 33-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kownacki. Independent claims 33 and 35 have been amended to recite “coupling an abutment to an implant positioned in a patient wherein the coupling rotationally fixes the abutment relative to the implant.” Kownacki in no way teaches or suggests that the coupling of the abutment to the implant rotationally fixes the abutment relative to the implant. In fact, Kownacki fails to disclose any type of rotational fixation aside from a fully tightened locking screw. Thus, Kownacki fails to disclose or suggest all of the limitations of amended claims 33 and 35. As not all of the limitations of claim 33 and 35 are disclosed or suggested by Kownacki, claims 33 and 35 are not rendered obvious by Kownacki. Thus, Applicants respectfully request that these rejection be withdrawn.

Further, as previously mentioned, modifying Kownacki to include anti-rotational features is a type of proposed modification that would render the prior art “unsatisfactory for its intended purpose” and “change the principle of operation” of a reference in a manner counter to

established law. M.P.E.P. § 2143.01 (citing *In re Gordon*, 733 F.2d at 902, 221 U.S.P.Q. at 1127 and *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959)).

Claim 34 is a dependent claim that depends directly from claim 33. As not all of the limitations of claim 33 are disclosed or suggested by Kownacki, claim 34 is not rendered obvious by Kownacki. Thus, Applicants respectfully request that these rejection be withdrawn.

Rejections Based on Kumar

Claims 11 and 12 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,394,806 to Kumar et al. ("Kumar"). Kumar discloses a snap-in healing cap for a dental implant that allows a surgeon to place the healing cap without additional tools. Col. 2, ll. 30-39. Kumar teaches that such a snap-in healing cap is desirable because a surgeon does not have to use an additional tool, like a screwdriver, or take the time to place a conventional healing cap. Col. 2, ll. 10-23. Kumar in no way discloses or suggest that an abutment used to support a prosthesis interacts with a feedback feature of the implant. Rather, Kumar discloses that a healing cap 32 may be snapped into an implant 10. FIGS. 8A-8C; col. 5, ll. 40-65. Kumar also teaches that the healing cap 32 may be easily removed, by simply pulling on the healing cap 32. Col. 6, ll. 31-49. Thus, Kumar is concerned with allowing a surgeon a quick way to place a healing cap used to allow gum tissue to heal over an implant recently placed in a jaw. Col. 1, ll. 45-54; Col. 2, ll. 30-39. Kumar never once mentions an abutment that interacts with a feedback feature of an implant. A healing cap serves an entirely different purpose than an abutment and is an entirely different type of component, as Kumar notes in the background of his disclosure. Col. 1, l. 45 – Col. 2, l. 8. Additionally, Kumar in no way teaches or discloses that the healing cap 32 is in any way rotationally fixed relative to the implant. Additionally, Kumar only discloses a single anti-rotation feature, an indexing chamber 26. There is nothing disclosed in Kumar to suggest that the snapping chamber 24 additionally acts as an anti-rotation feature.

Claims 11, 12

Claim 11 recites an implant having "an internal feedback feature adapted to interface with an abutment" and "an internal axial retention section ... adapted to couple with an abutment retention shaft ... to limit axial movement of the abutment relative to the implant." As previously discussed, Kumar in no way teaches or suggests that the an abutment interacts with

the snapping chamber 24. Rather, Kumar teaches that a healing cap interacts with the snapping chamber 24. Col. 5, ll. 28-39. Thus, Kumar fails to teach, disclose, or suggest all of the limitations of claim 11. Additionally, even assuming *arguendo* that a healing cap is analogous to an abutment, an assumption Applicants traverse, Kumar in no way teaches that an “axial retention section ... couple[s] with an abutment retention shaft ... to limit axial movement of the abutment.” Rather, Kumar teaches that solely a snap-fit should be utilized with a healing cap. Col. 2, ll. 30-33. Thus, Kumar teaches away from utilizing a snap-fit and a screw to retain a component. Therefore, Kumar does not anticipate, nor render obvious, claim 11, and Applicant respectfully requests that this rejection be withdrawn.

Claim 12 has been canceled by the present amendment.

Rejections Based on Kumar in view of Brammann

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kumar in view of U.S. Patent No. 5,468,150 to Brammann (“Brammann”).

Brammann discloses an implant 102 that has a secondary portion 120 attached thereto. FIG. 2. Bramman teaches that a mandrel 136 is used to secure the secondary portion 120 to the implant 102. Bramman in no way teaches an “internal axial retention section ... adapted to ... limit the axial movement of the abutment relative to the implant.” As the Examiner notes, Kumar in no way teaches an abutment.

As previously stated, Kumar in no way teaches that an abutment interacts with “an internal feedback feature” of the implant. Additionally, Kumar teaches away from the use of a snap-fit with a retention screw. Col. 2, ll. 30-33.

Claim 13 is a dependent claim that depends directly from claim 11. Claim 11 recites several limitations, among them an “internal axial retention section ... adapted to ... limit the axial movement of the abutment relative to the implant.”

Although a prior art reference may be modified to meet the claimed limitation, the resultant modified reference is not obvious unless the prior art also suggests or motivates the desirability of the modification. *In re Mills*, 916 F.2d 680, 682, 16 U.S.P.Q.2d 1430, 1432 (Fed. Cir. 1990) (citing *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984)). Obviousness cannot “be established using hindsight or in view of the teachings or suggestions of the invention.” *Ex parte Maguire*, 2002 WL 1801466, *4 (Bd. Pat. App. & Inter. 2002) (quoting

Para-Ordnance Mfg. Inc. v. SGS Importers Int'l Inc., 73 F.3d 1085, 1087, 37 U.S.P.Q.2d 1237, 1239 (Fed. Cir. 1995), *cert. denied*, 519 U.S. 822 (1996)). Further, the proposed modification cannot render the prior art “unsatisfactory for its intended purpose” nor can it “change the principle of operation” of a reference. M.P.E.P. § 2143.01 (citing *In re Gordon*, 733 F.2d at 902, 221 U.S.P.Q. at 1127 and *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959)).

The law of obviousness requires that a reference be considered as a whole, including those portions that teach away from the claimed invention. *See W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.3d 1540, 1550-51, 220 U.S.P.Q. 303, 311 (Fed. Cir. 1983) (“[T]he totality of a reference’s teaching must be considered.”); *see also* M.P.E.P. § 2141.02 (stating that prior art must be considered in its entirety including disclosures that teach away from the claims). Indicia of teaching away in a reference give insight into the question of obviousness. *Monarch Knitting Mach. Corp. v. Sulzer Morat GMBH*, 139 F.3d 877, 885, 45 U.S.P.Q.2d 1977, 1984 (Fed. Cir. 1998). A prior art reference may be considered to teach away when “a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *Monarch Knitting*, 139 F.3d at 885, 45 U.S.P.Q.2d at 1984 (quoting *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130, 1131 (Fed. Cir. 1994)).

The Examiner, of course, has the initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention under any statutory provision. *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1451 (Fed. Cir. 1997). In rejecting a claim under 35 U.S.C. § 103, the Examiner is required to identify a source in the applied prior art for: (1) claim limitations; and (2) the requisite motivation to modify an applied reference or to combine applied references with a reasonable expectation of successfully achieving a specific benefit. *Smiths Industries Medical Systems, Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 51 USPQ2d 1415 (Fed. Cir. 1999).

A person having ordinary skill in the art would not be motivated to combine the teachings of Kumar with those of Brammann. Kumar teaches that a screw to retain a healing cap to the implant should not be used for a variety of reasons. Col 2., ll. 10-23. Kumar even goes so far as to suggest that an object of that invention is to eliminate the need for additional tools, like a screwdriver, to place a conventional healing cap. Col 2., ll. 10-23. Thus, one having ordinary

skill in the art would read Kumar as teaching that using a screw to retain a component to the implant should never be used in conjunction with a snap-fit. Therefore, a person having ordinary skill in the art would not combine Kumar with Brammann, as doing so would both render Kumar “unsatisfactory for its intended purpose” of eliminating the need of additional tools to connect a component to an implant. MPEP § 2143.01. Therefore, no motivation exists to combine Kumar with Brammann, and Applicants respectfully request that this rejection be withdrawn.

Rejections Based on Kownacki in view of Sutter

Claims 12 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kownacki in view of Sutter. Claim 12 is cancelled by this amendment.

Kownacki in no way teaches or suggests any type of anti-rotational feature within an implant. Kownacki only limits rotation when a screw is tightened. Col. 3, ll. 57-66. Claim 25 recites an implant with “two distinct anti-rotational features.” Thus, not all of the limitations of claim 25 are taught or suggested by Kownacki.

Sutter only discloses a single anti-rotational feature, positioning section 15, made up of projections 23 and interstices 24, 25. Col. 6, ll. 48-59; FIGS. 2-3. The secondary part 201 has a positioning section 215 that cooperates with the positioning section 15 of the implant 1. Col. 8, ll. 36-54; FIGS. 7-9. Thus, Sutter only discloses a single anti-rotational feature. The Examiner has cited to the secondary part shown in FIG. 11 and described at Col. 9, ll. 20-25 and Col. 11, ll. 40-50 to show that Sutter discloses more than one anti-rotational feature. However, Sutter clearly only depicts a single anti-rotational feature. See. FIGS. 1-11. The Examiner seems to be of the opinion that a screw that secures the secondary part to the implant as described at Col. 11, ll. 40-50 should be considered an anti-rotation feature. However, claim 25 clearly recites that the bore comprises two anti-rotational features and independent claim 20, from which claim 25 depends also recites a screw.

As not all of the limitations of claim 25 are disclosed or suggested by Kownacki in view of Sutter, claim 25 is not unpatentable over Kownacki in view of Sutter. Thus, Applicants respectfully request that this rejection be withdrawn.

Double Patenting Rejection

Claims 1-35 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting with regard to claims 1-57, 67, 69, and 70 of copending U.S. Patent Application No. 10/713,404.

A Terminal Disclaimer is submitted herewith for U.S. Patent Application No. 10/713,404. This Terminal Disclaimer should not be construed as an admission to the merits of the obviousness-type double-patenting rejections pursuant to Quad Environmental Technologies Corp. v. Union Sanitary District, 946 F.2d 870 (Fed. Cir. 1991).

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. It is believed that \$250.00 is presently due to cover the additional fees for the Terminal Disclaimer and a one month extension of time. The Commissioner is authorized to deduct fees from Nixon Peabody LLP Deposit Account No. 51-4181, Order No. 247168-000297USPT. Should any additional fees be required (except for payment of the issue fee), the Commissioner is authorized to deduct the fees from Nixon Peabody LLP Deposit Account No. 504181, Order No. 247168-000297USPT.

Dated: March 29, 2007

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